The Claim - Few Competitors and Large Allocations are Viable	The Reality - Assumptions About the Marketplace Impact Conclusions about Viability
	• The truth of the matter is that we cannot be sure what size blocks are best suited to the various business plans and technologies being developed by would-be PCS providers. Projections may be consistent with the assumptions an plans of the speakers, but that in no way captures the reality of the total marketplace. The Commission should continue its cautious and wise agnosticism, reflected in its broad definition of PCS, and not attempt to adopt a single vision of PCS and tailor policies adapted to pursuing that one vision. • Rather, to ensure compliance with the broad mandates of the Communications Act, the Commission should adopt a flexible policy which will foster broad participation, and permit aggregation of licenses like building blocks. • The Commission should permit any qualified party to pursue licensing in the PCS bands, subject to no unnecessary or unjustified restrictions, and should allow the marketplace to define PCS.

The Claim - Major Trading Areas (MTAs) Have Advantages Over Basic Trading Areas (BTAs)	**The Reality - Assumptions About the Marketplace Impact Conclusions about Viability**
• Elliott Hamilton of EMCI observed that "we see PCS having some unique advantages. . . . One of them will be the MTA license definitions. We believe the wide area -- starting out with a very wide area license -- will give them an advantage over some of the other industries, starting out." April 11 Transcript, at p.65.	• In fact, the greatest challenge to the viability of the BTA licenses may be the MTA licenses, based on the reaction of the financial panelists.
• David Kerr, BIS Strategic Decisions, observed that MTAs will overshadow BTA licenses. *Id.* at pp. 32-33.	• As Dr. Waylan of GTE noted, the BTA geography offers the advantages of being larger than cellular MSAs and RSAs, but it may be too small to permit effective competition against significantly larger 30 MHz licenses. *Id.* at pp. 54-55.
	• However, Mr. Herb Wilkins of Syncom supported small license areas and smaller blocks as calculated to promote both greater opportunity and the development of niche services which he considered crucial to achieving competition. April 11 Transcript at p.291. Larger license areas and blocks both reduce the numbers which are available, and place those which do exist out of the financial reach of many would-be players. *Id.*
	• Limond Grindstaff of Airtouch stated that their studies "support the BTAs, and the economics for the BTAs are much better than the MTAs. The cost of the license for the MTAs really puts your business on the negative for a lot longer than the BTAs where the license . . . will be less expensive and that you can concentrate your business[.]" April 12 Transcript at p.113.

The Claim - The Markets Will Hesitate to Fund PCS	The Reality - Wireless Services Have Received Funding in the Recent Past, and Should Continue to Do So
• Al Houston of AT&T Network Systems provided a brief explanation of the desire of investors to minimize risk and maximize returns, and the degree to which numbers of licenses, small geographic areas, and other factors may cause PCS to fail to appeal to investors, either debt or equity. *Id.* at p.228. • Al Houston expressed the belief that PCS will be funded through equity. *Id.* at pp.229-30. • Paul Rissman of Alliance Capital projected that in two years the potential subscriber base for PCS will be "25 to 30 percent penetrated with existing cellular services. Everything will be digital. Costs will have declined for the incumbents. . . . It will be a very full service cellular incumbent environment." *Id.* at p.239. • Nancy Peretsman of Salomon Brothers drew upon the examples of the financing of ESMRs, cellular companies, cable companies, other telecommunications entities by investment banks -- tying the investment to demonstration of a franchise value, of the willingness of other parties to acquire the property. She also made it clear that early strategic money or deep pockets were factors in the funding of those industries. *Id.* at pp.245-56.	• Commissioner Barrett drew from the three financial analysts the admission that none of their responses were based on technical considerations, but on the economic consideration that -- as Ms. Peretsman put it -- at some point the more competition in the marketplace the more uncomfortable they are with it. *Id.* at p.276. In short, they want a guaranteed return, and as little risk as possible, and big blocks with as few players as possible appeals to them. • In spite of some self-description as investors in growth opportunities, the position of the financial analysts is summed up in Mr. Rissman's statement that "I don't get paid for having vision. I get paid for spotting money-making opportunities." *Id.* at p.333. • Given his own statement that they "bought lots of cable stocks in the fall because we thought it was a good investment," [*Id.*] Wall Street's ability to project the future is more than a little questionable.

The Claim - The Markets Will Hesitate to Fund PCS	The Reality - Wireless Services Have Received Funding in the Recent Past, and Should Continue to Do So
• Mark Roberts of Alex, Brown & Sons, argued that the competitive prospects of PCS are advantaged by leveraging off of existing telecommunications networks, using "a minimum of 30 MHz of contiguous spectrum. . . minimum of an MTA license size." *Id.* at p.248. He argued that these elements were necessary to achieve a similar cost structure to cellular -- describing blocks of less than 30 MHz as "permanently lock[ing] in premium investment returns for the cellular industry . . . . inhibit[ing] PCS deployment and . . . their ability to raise capital." *Id.* at p.249. He opposed aggregation as a factor delaying deployment, reducing expected investment returns, and raising the cost of capital. *Id.* at pp.249-50.	• Actually, this is no surprise, since both speakers stated their preference for 30 MHz blocks, and antipathy for aggregation. However, such a proposal is entirely contrary to the idea of using the competitive marketplace as a discovery mechanism to drive the most efficient allocation of resources, and the most efficient production of cost-effective services.
• Both Ms. Peretsman and Mr. Roberts described 30 MHz blocks and MTAs as the minimum viable market. *Id.* at pp.325-26.	• Mr. John Oxendine also criticized Mr. Roberts' thesis, observing that "we could take the whole 120 and give it to one person and be very efficient that way. The operation would be successful but the patient would be dead in that democracy wouldn't be served and there wouldn't be a whole lot of people involved." *Id.* at p.255.

The Claim - The Markets Will Hesitate to Fund PCS	**The Reality - Wireless Services Have Received Funding in the Recent Past, and Should Continue to Do So**
• David Kerr of BIS Strategies thinks that it will be hard to raise capital outside of the top 10 to 15 MTAs. *Id.* at pp.67-68.	• Dr. Hausman expressed the opinion that the capital markets will fund PCS, as they have funded ESMRs, and that aggregation will not be a problem. April 11 Transcript at 215. • In fact, the companies most interested in and capable of raising money and bidding for PCS licenses in markets across the entire nation face the prospect of restriction from the marketplace. Cellular companies already provide voice service and have the most incentives to go beyond their current geographic boundaries and to provide new services both in- and out-of-region.
• Financial panelist Mr. Rissman suggested that markets with 150,000 to 200,000 customers *per carrier* are "not all that viable." *Id.* at p.281.	• This pessimism is astounding, since such customer numbers can equate to an annual cash flow per market of between $36 and $96 million (assuming average monthly bills between $20 and $40 -- such figures having been suggested by various PCS proponents). But, then again, there were critics who believed that the similarly-sized cellular RSA markets were not viable. • Dr. Jacobs also observed that applications attuned to BTAs are feasible, if a BTA-based system is adopted. *Id.* at p.118.

The Claim - Big Blocks Are Necessary for PCS Funding

- Donald Gips asked what size spectrum blocks were necessary in order to obtain financing.

- Paul Rissman indicated that "right now we don't know what the size of the spectrum award is that will work. We have consultant studies that say 20 MHz is fine. We have consultant studies that say 30 MHz is fine. We have consultant studies that say you need at least 40 MHz." Noting that in the U.K Mercury One-2-One has 50 MHz, he observed "What we would like to see is a spectrum grant that we know is going to work. We do not want to see a spectrum grant where we will be scratching our heads saying, boy, if this doesn't work our money is down the drain." *Id.* at pp.250-51.

- Mr. Roberts stated that he thought 30 MHz "appears to be about the minimum size particularly if you are going to deploy services in third and fourth-tier markets" and provide multimedia services. *Id.* at p.252.

- Mr. Roberts indicated that his firm has raised about $ 400 million in the past six months for technically sophisticated potential PCS entrants -- but when given an example indicated that they would probably fund a PCS licensee after winning the license, rather than before. *Id.*

The Reality - A Broad Range of Possibilities Exist, and Predictions Are Based on Case-Specific Assumptions

- Mr. Wilkins disagreed with the premises advanced by the various bankers saying that "this is an industry that is going to be around for quite a long time. To structure it now so that it merely rides on the basis of what technology exists, ignores the fact that there are probably entrepreneurs right in this room who have ideas who would allow the development of the spectrum in such a way with different technology to serve different market interests."

- Mr. Wilkins observed that the financiers and the Commission appear to be assuming that the spectrum will be used solely to deploy cellular service, and not for innovative applications, and stated "If the Commission goes the way of the Wall Street we will have pure cellular systems competing head to head on the basis of price, solely on the basis of price without anybody making any money and without the country having the kind of service that we would all like to see it have." *Id.* at pp.271-72.

The Claim - Big Blocks Are Necessary for PCS Funding	**The Reality - A Broad Range of Possibilities Exist, and Predictions Are Based on Case-Specific Assumptions**
• Peretsman and Rissman indicated that they would fund the largest blocks, in the largest markets, and that aggregated blocks in the larger markets might get funded (Peretsman), but that smaller blocks and smaller markets would not get funded without aggregation into MTA sized entities. (*e.g.*, Rissman, pp. 268-70).	• Mr. Wilkins responded by saying that blocks of more than 30 MHz were approaching overkill, noting that smaller blocks such as ESMR uses are being funded, and that a ubiquitous digital service could be provided with 20 MHz. *Id.* at p.253.
• Mr. Roberts responded to Mr. Oxendine by noting that cellular after-market transactions were still on-going, and that he would want to know what a new PCS provider's plan was for competing with cellular, its cost structure, and marketing strategy -- and that the resulting capital would be difficult to find and expensive by contrast with the existing cellular service provider's cost of capital. *Id.* at pp.259-60.	• Mr. Oxendine criticized the larger blocks as advantaging the bigger players in the capital markets, and argued for more uniform spectrum block sizes in order to foster participation, cooperation, and partnering. *Id.* at p.256. In response to a panel question, he noted the advantages which the larger players will have in establishing strategic alliances and joint ventures, noting that "I'm suggesting that we open it up so everybody can play. And I don't hear that from your side of the table." *Id.* at pp.258-59.
• Mr. Roberts responded that "I don't think that just legislating alliances or regulating alliances will result in the sort of service proliferation and the prices falling to the point that consumers will be benefitted." *Id.* at pp.262-63.	•Mr. Oxendine responded by noting that Mr. Roberts had assumed exclusivity, the nonexistence of partnerships or alliances with cellular and other players. *Id.*

The Claim - the Proposed Spectrum Allocation for PCS is Impractical for Subsequent Aggregation	The Reality - Multi-based/Multi-mode handsets are feasible and are being developed • John Battin indicated that "I think that this [the difference in cost between a handset that works from the current unlicensed band to the 1800 band and a handset that works from the current unlicensed band to the 2100 band] somewhat depends on the technology that you use, but I think in most of the technologies it's relatively inexpensive. Maybe it's 5 or 10 percent to have a subscriber unit that can interoperate in unlicensed band, you know, let's say within the one dot eight range. But shifting up to two dot one, you know, it's probably in that 20 to 25 percent range." April 12 Transcript at p.124.

The Claim - the Proposed Spectrum Allocation for PCS is Impractical for Subsequent Aggregation	**The Reality - Multi-based/Multi-mode handsets are feasible and are being developed** • Dr. Irwin Jacobs, of QUALCOMM, stated that "Our system which uses a 1.25 megahertz bandwidth with extensions to 5 is compatible with a 10 megahertz and larger allocations. We are pursuing dual mode/dual band equipment that will operate in both the 800 megahertz cellular band and one or both PCS bands. However, the dual 1.8 [GHz] and 2.1 [GHz] equipment; that is the one covering both the lower and the upper PCS bands, that would result in what we estimate now to be about a 20 to 25 percent increase in cost and weight over 1.8 megahertz only. And, in fact, the dual mode -- frequency band AMPS and 1.8 would only be, perhaps, a 15 to 20 percent increase; a little bit less expensive." April 12 Transcript at pp.44-45. • John Battin, of Motorola, indicated that "the way it looks now is that there will be many requests for dual mode -- most of any one operator may get a 20 megahertz license, a 20 -- a 30 megahertz license and also a 20 megahertz license of a two dot one. And so, therefore, we will be building subscriber units that try to span all of those frequencies. And I agree with Irwin; that that's a 20 or 25 percent premium. So it's not just an issue of, hey, I have a 10 megahertz license. If you're in this business on a pretty wide scale basis, you may have a 30, a 20, a 10, and so you have to build both those subscriber units that can cover all of those frequencies." *Id.* at pp.69-70.

Building The
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PCS WHITE PAPER No. 1
Second Series

Building a Sound Foundation for PCS

January 12, 1994

Building a Sound Foundation for PCS

Compelling reasons support immediate refinement of the Commission's PCS rules.

The Commission's own goals and the weight of the evidence call for several refinements of the Personal Communications Service (PCS) regime. Specifically, the Commission should:

- modify the PCS *Second Report and Order* to create four 20 MHz blocks while maintaining four 10 MHz blocks.

- modify the preconditions for PCS licensing, to allow the public to benefit from the economies of scale and scope acknowledged in the *Second Report and Order.*

- use a BTA-based geographic market regime for all licenses as opposed to advantaging some licensees with MTA-based supersystems.

These refinements will better serve the Commission's own goals of "universality; speed of deployment; diversity of services; and competitive delivery" of PCS services; provide opportunities for small, women, minority and rural enterprises to participate in the information age telecommunications marketplace; create jobs; and generate greater Treasury revenues.

These refinements are supported by the weight of the evidence -- the majority of commentors having endorsed smaller spectrum blocks of 10 MHz to 20 MHz, and smaller licensing areas.

Furthermore, adoption of these refinements will resolve inconsistencies within the rationale for the PCS regime -- while remaining faithful to the statutory timetable for initiation of PCS licensing.

Large Areas and Large Blocks May Lock Up The Market -- and Spectrum

The Commission can be faithful to its mandates to foster competition and innovative technologies, and its objective of promoting the efficient use of the spectrum resource, by utilizing "building blocks" instead of tying up vast amounts of spectrum or geography in a single license. In fact, the *Second Report and Order* and Commissioner Barrett's dissent note that *the majority of commentors supported both smaller service areas and smaller spectrum blocks of 20 MHz or less.*

Under such a "building block" approach, it would be possible for those requiring increased spectrum of frequency to purchase the necessary number of building blocks. The Commission *should* permit would-be service providers to bid for both geographic markets and spectrum blocks in whatever number as will permit them to configure their markets and services to best advantage.

But, the Commission should *not* pre-suppose that all such markets must be MTAs, nor should it pre-suppose that all providers will require or make the best use of 30 MHz blocks. If bidders wish to acquire blocks of such size, the Commission should permit them to bid for

20 MHz and 10 MHz (or three 10 MHz) blocks. Likewise, if bidders wish to deploy services which will use 40 MHz of spectrum, they should be free to bid for the necessary 20 MHz blocks.[1]

A 30 MHz block should not be presumed to be the necessary minimum for deploying service. In fact, in adopting 20 MHz and 10 MHz spectrum blocks the Commission conceded that both were sufficient for viable PCS services, and it should not simultaneously assume that 30 MHz is a necessary predicate for service. It should adopt four 20 MHz and four 10 MHz blocks, and allow prospective service providers to bid for the blocks necessary to deliver their target services. In conjunction with the auction proceeding, such a refinement of the PCS regime will provide parties with the "flexibility to match an applicant's specific needs with spectrum [and] should promote efficient use of the spectrum resource." *Second Report and Order*, at para. 59.

Small Blocks Can Sustain Viable Services

As NEXTEL, PowerSpectrum and other commentors have argued in the PCS proceeding, a wide range of services can be provided via spectrum-efficient technologies. In fact, many of these companies are preparing to offer service using digital technology and smaller blocks of spectrum.

For example, CenCall, Dial Page, Geotek, NEXTEL, Pittencrief and numerous other nascent Enhanced Specialized Mobile Service (ESMR) providers have assembled a *total* of 5 MHz to 10 MHz each as the basis for their next generation of wireless services.

Dial Page's recent acquisitions in Florida will give it the equivalent of 3.5 to 5 MHz in those markets.[2] Geotek's acquisition of Metro Net Systems' 800 MHz SMR channels in New York will give Geotek an additional 3.5 MHz in the New York area, beyond its existing 900 MHz channels.[3] And CenCall has announced an agreement to acquire the equivalent of 10 MHz in the St. Louis area.[4]

These companies are building viable businesses on 10 MHz or less of spectrum and digital technology, thus demonstrating the unnecessariness of the Commission's 30 MHz blocks.

This is possible because digital systems provide much greater capacity than analog cellular systems. For example, *Code Division Multiple Access* (CDMA) uses a low-power signal spread across a designated bandwidth, and assigns codes to the calls to ensure proper delivery. CDMA is estimated to increase capacity by at least ten times the capacity of analog cellular

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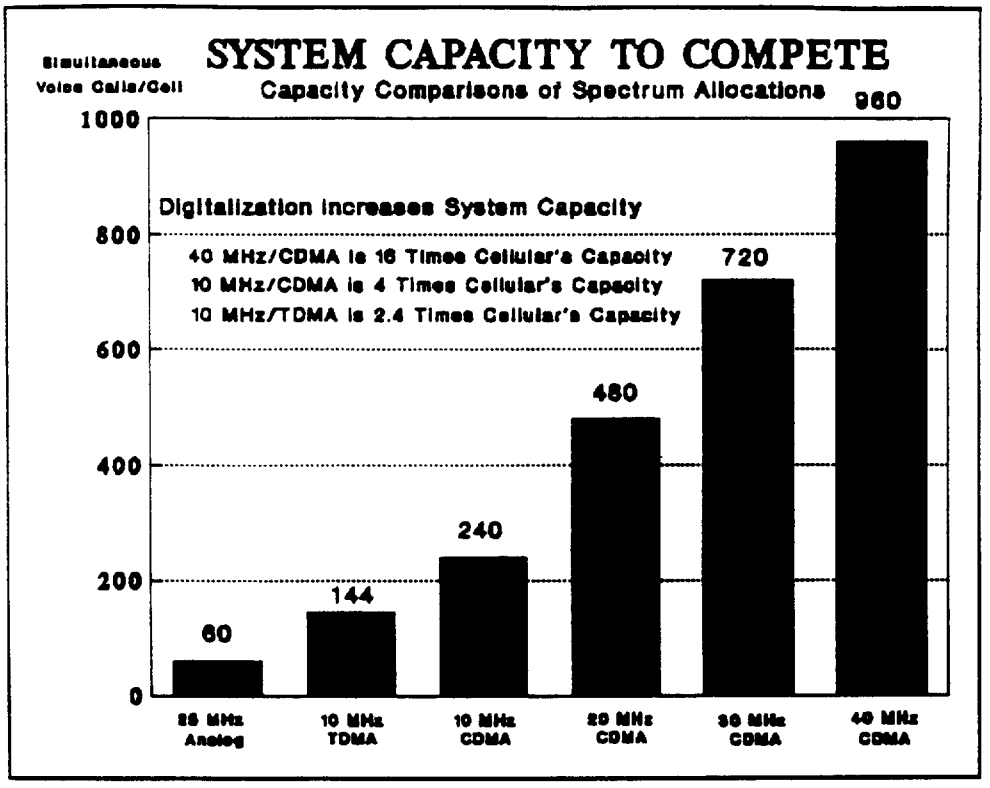
[1]To the extent that 40 MHz is held necessary to deliver some services, the Commission should clarify that all providers may reach such a cap.

[2]*PRNewswire*, October 25, 1993.

[3]*Telocator Bulletin*, October 22, 1993, at p.6.

[4]Standard & Poor's *Daily News*, November 9, 1993.

systems. *Time Division Multiple Access* (TDMA) splits a signal into pieces and, by assigning the parts to different time slots, permits a single channel to be used to deliver three simultaneous messages. Through engineering techniques, a 10 MHz TDMA system can carry 144 simultaneous voice calls compared to a 25 MHz analog cellular system's 60 calls.



These facts should militate against overly-large allocations *as the default standard.* As the history of other proceedings indicates, assignment of blocks with insufficient attention to spectrum efficiency can cause future problems in trying to find spectrum for new applications.

BTAs Are Better Building Blocks Than MTAs

The Commission should not presume that MTAs are the best model for geographic PCS markets. Rand McNally's 47 MTAs and 487 BTAs were originally designed around principles which are disassociated from wireless communications needs -- e.g., newspaper circulation patterns, banking deposits, and other unrelated factors like railroads.[5] Nonetheless, the Commission over-rode the arguments of the majority of commentors that the existing cellular license areas were the most appropriate geographic markets for PCS services.

The Advantages of BTAs: BTAs will facilitate the entry of small, minority, women, and rural enterprises into the telecommunications marketplace. Entry on a BTA-basis will also foster market-specific service offerings, and increase the likelihood that rural areas will be served.

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[5]See Comments of Rand McNally on Petitions for Reconsideration and Clarification, GEN Docket No. 90-314, filed January 3, 1994, at p.4.

After all, a nationwide provider could claim to reach 75 % of the American people, without ever offering service to the residents of rural America.

The Problem with MTAs: MTAs will not facilitate the entry of smaller companies -- indeed, they are probably beyond the financial means to buy and build of all but a few companies. Other reasons for adopting MTAs, such as the notion that they may facilitate regional and nationwide roaming, rest on a simple and false assumption: that smaller areas are incompatible with roaming. To the contrary, cellular companies have already proven that such smaller areas as MSAs and RSAs are completely compatible with roaming. *Industry-wide, over twelve percent of annual cellular revenues are generated by roamers, rising to 31 percent for small operators* -- something which would not be true if roaming was inhibited by small license areas.

Likewise, the argument that such broad geographic areas as MTAs are required to prevent the balkanization of the communications system collapses in the face of the actual form and framework of the American telecommunications marketplace.

The United States is served by over 1400 local telephone companies with over 11,000 local landline exchanges, by 350 cellular companies operating 1508 systems, and by dozens of interexchange carriers serving anywhere from a single state to all 50 states and international markets. And dozens more competitive access providers (CAPS), private internal communications networks, and nascent fiber- or satellite-based systems are in operation, or are being prepared for rollout.

If a multi-provider, multi-market telecommunications system was doomed because it would be inherently a balkanized and incompatible hodge-podge of networks, the United States would be unserved today -- or would be served by only a single, integrated company. Reality is far different -- and was so even when the telecommunications industry was a nominal monopoly -- for even then over 1500 telephone companies served the country.

The Licensing Preconditions Are At Odds With The PCS Rationale and Goals

The PCS licensing preconditions are overly strict, and constitute hurdles which will frustrate the Commission's own PCS goals of diversity, universality, and economy. The Commission should revisit its decision to define investors and owners as cellular companies on the basis of a 20 % interest in a cellular company, and limit their eligibility for spectrum licenses if there is a population overlap of 10 % between the cellular and PCS market.

These conditions are arbitrary and capricious, being unconnected with indicia of actual control, with opportunities for theoretical misconduct, or with traditional standards of market power measurement. For example, the Department of Justice's Merger Guidelines do not even consider a matter ripe for review until a threshold of 30-35 % is reached.

The Commission's PCS licensing preconditions fly in the face of the Commission's own conclusions and accepted antitrust standards, in effect borrowing trouble unnecessarily. Existing laws and regulations stand ready to correct any incident, or tendency toward abuse of market power should it occur, while refinement of the Commission's rules will ensure that another unintended consequence will not result -- the elimination of venture capital and other investment

funds from availability to small, women, minority and rural enterprises because of the *investors'* classification as cellular companies under the Commission's attribution rules.

The Commission's rules would otherwise become a policy at war with itself -- summoning companies to create a new information age infrastructure, while discouraging investors to commit to the funding of that infrastructure; enhancing concentrated powerhouses of information-generation, while discouraging broad participation in developing systems for distributing that intelligence.

A more productive regime -- consistent with the Commission's goals and the weight of the evidence -- is attainable by drawing upon existing safeguards and standards.

The Commission can recognize that passive investments do not constitute control, and substitute an attribution threshold of 30-35 % for its current rule, without sacrificing the public interest in either competition or its benefits.

Likewise, by raising the overlap threshold from 10 % to 40 %, the Commission can reconcile its PCS standard with antitrust standards, without eliminating safeguards against abuse of market power.

Building The Wireless Future

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Randall S. Coleman
Vice President for
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April 29, 1994

Chairman Reed Hundt
Federal Communications Commission
1919 M Street, N.W. Room 814
Washington, D.C. 20554

Re: Ex Parte Filing
GEN Docket No. 90-314
Personal Communications Services

Dear Chairman Hundt:

The enclosed White Paper, entitled *Growth of a Sustainable PCS Industry: The Critical Role of Cellular Eligibility*, reviews the impact of the Federal Communications Commission's Personal Communications Services (PCS) rules, and concludes that:

Cellular eligibility in- and out-of-market is the right policy to create a vital and viable PCS industry, because:

- **Cellular carriers are uniquely qualified to provide PCS, given their experience in deploying innovative wireless services nationwide.** (see p.2)

- **Excluding or unnecessarily restricting cellular carriers and investors will harm the public by delaying the deployment of PCS and eliminating production efficiencies.** (see p.3)

- **Excluding or unnecessarily restricting cellular entry is irrational and counter-productive, punishing companies for both actual and *potential* success in serving a growing subscriber population.** (see p.4)

- **Cellular eligibility will foster innovation and competition by exploiting the experience and the facilities of cellular companies and investors.** (see p.5)

- **Elimination of unnecessary and unreasonable ownership attribution and geographic overlap rules is called for to ensure the national information infrastructure is funded and deployed throughout the country, delivering advanced wireless services to rural and urban areas.** (see p.7)

The public will benefit from such companies' knowledge and the efficiencies of their networks, and the FCC will foster innovation and competition in wireless services.

If there are any questions in this regard, please contact the undersigned.

Very truly yours,

Randall S. Coleman

Enclosure

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PCS WHITE PAPER No. 4
Second Series

Growth of a Sustainable PCS Industry:

The Critical Role of Cellular Eligibility

April 29, 1994

Growth of a Sustainable PCS Industry: The Critical Role of Cellular Eligibility

In its Reconsideration of the *Second Report and Order*[1] on Personal Communications Services (PCS), the FCC should modify or eliminate the rules which limit the ability of existing wireless providers to utilize PCS spectrum both in their existing service areas and in adjacent markets.

Cellular eligibility in- and out-of-market is the right policy to create a vital and viable PCS industry, because:

- **Cellular carriers are uniquely qualified to provide PCS, given their experience in deploying innovative wireless services nationwide.** (see p.2)

- **Excluding or unnecessarily restricting cellular carriers and investors will harm the public by delaying the deployment of PCS and eliminating production efficiencies.** (see p.3)

- **Excluding or unnecessarily restricting cellular entry is irrational and counter-productive, punishing companies for both actual and *potential* success in serving a growing subscriber population.** (see p.4)

- **Cellular eligibility will foster innovation and competition by exploiting the experience and the facilities of cellular companies and investors.** (see p.5)

- **Elimination of unnecessary and unreasonable ownership attribution and geographic overlap rules is called for to ensure the national information infrastructure is funded and deployed throughout the country, delivering advanced wireless services to rural and urban areas.** (see p.7)

Cellular Eligibility is the Right Policy for a Vital PCS Industry

A policy of open entry for any and all qualified would-be Personal Communications Service (PCS) providers will provide the basis for a sustainable and competitive PCS industry.

Restrictions on entry, whether in the form of complete exclusion or a deliberate handicapping of companies already offering wireless services, threaten to harm the PCS industry, by eliminating the efficiencies these companies have to offer and by distorting the evolution of wireless services, robbing the public of the opportunity to choose among competing visions of PCS.

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[1] *Second Report and Order, Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, 8 FCC Rcd. 7700 (October 22, 1993).

Even though such restrictions are ostensibly presented with the laudable ...tent of promoting or fostering competition, their effect will be to undermine the basis for a vital and sustainable industry -- and the Commission should reject them as incompatible with both equity and the Commission's PCS objectives.

A more equitable and more viable policy would modify or eliminate the restrictions to permit greater participation in PCS by cellular carriers and investors.

Relaxation or elimination of the restrictions is not proposed by a narrow class of companies, nor by predominantly large companies. Companies as diverse as the Anchorage Telephone Utility, the Chickasaw Telephone Company, the Concord Telephone Company, the Organization for the Protection and Advancement of Small Telephone Companies (OPASTCO), Florida Cellular RSA Limited Partnership, Palmetto Mobile Network (PMN, Inc.), the Rural Cellular Association, Point Communications, Radiofone, and McCaw Cellular, Sprint Cellular and U S WEST NewVector Group have argued for the modification or elimination of the cellular eligibility restriction. Some twenty-five reconsideration petitions were filed, on behalf of these and other parties, arguing for modification or elimination of the eligibility restrictions.

Cellular Companies are Uniquely Qualified to Participate in PCS and Expand Services

Cellular companies have been deploying innovative wireless services, building networks across America for the past ten years.

As CTIA's year-end 1993 Data Survey found, cellular companies have:

- invested almost $ 14 billion dollars in building these systems.
- delivered service to over 16 million subscribers in all 734 geographic markets across America.
- employed almost 40,000 people (and created another 85,000 jobs in related industries), growing employment at an annual rate of 15 % to 30 %.

These companies have invested significant efforts in developing and testing new PCS applications, and as current providers of cellular voice services, have a greater incentive to innovate, developing new applications for the wireless marketplace, including data and messaging services.

By excluding or restricting cellular companies from utilizing PCS spectrum in adjacent markets, the Commission risks limiting the promise of PCS to being little more than a cellular "clone" -- principally offering little more than current cellular voice applications. After all, the voice business is proven and safer than any other potential use of the spectrum.

By *including* cellular companies, and allowing them to acquire *additional* spectrum in-market and in adjacent markets, the Commission will foster the development of new applications, including niche and mass market services such as specialized medical applications and broadband video. *Who better to develop new applications than someone who is already providing voice services?*

Excluding or Unnecessarily Restricting Cellular Companies and Investors Will Harm the Public by Delaying PCS and Eliminating Efficiencies

Proposals that the FCC exclude cellular companies entirely (as suggested by Time Warner Telecommunications, self-described as part of the world's largest media company -- see April 12 En Banc Meeting Transcript at p.14) or to further handicap their ability to compete for and use PCS spectrum (as suggested by MCI, the second largest U.S. interexchange company) risk handicapping competition, by bestowing a guaranteed advantage upon a particular class of providers -- those not denominated "cellular" companies.

Further suggestions that the "cure" for the cellular duopoly is establishment of an effective PCS duopoly characterized by two 40 MHz or 50 MHz licenses (as suggested by Time Warner Telecommunications and their consultants, LCC, Inc.) are inconsistent with efficient spectrum utilization and with the Congressional mandate to promote competition, diversity in services, and opportunities for multiple providers.

As it is, the FCC's 20 percent ownership attribution and 10 percent geographic overlap restrictions threaten the wireless marketplace by selectively and unnecessarily restraining companies on the basis of their involvement in the wireless industry and their potential subscriber base, in effect punishing them for their commitment to the marketplace.

Under this theory, the benefits of new services, efficiently deployed by existing companies, constitute harm to consumers.

This is doubly ironic, as *the FCC has already found that cellular companies can help speed the deployment of PCS by "taking advantage of cellular providers' expertise, economies of scope between PCS and cellular service, and existing infrastructures."*[2]

In fact, cellular companies' expertise includes:

- their experience with wireless technology deployment, and its technical requirements.

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[2] *See Second Report and Order,* 8 FCC Rcd. at 7744 para. 104.

- the knowledge gained from their PCS trials of the technical, economic and social viability of specific applications.

- their knowledge of, and identification with, the communities which they serve.

As found in the study by David Reed, of the FCC's Office of Plans and Policy, "Putting It All Together: The Cost Structure of Personal Communications Services," *different kinds of firms will bring differing efficiencies* to the PCS marketplace. By including diverse companies from many industries, and by encouraging them to compete on an equal footing for PCS spectrum and in the PCS marketplace, the FCC will exploit their differing visions and capacities to the fullest -- and thereby build a more vital wireless industry.

Moreover, *the following chart from the David Reed study suggests that cellular economies are not so prohibitively stronger than those of other potential PCS providers as to constitute an overwhelming source of market power.*

Scope Economies Possessed by All PCS Applicants

Infrastructure Alternatives	Operations, Administration & Maintenance	Advanced Signalling Network & Intelligent Nodes	Switching	Transport	Cell Sites	Handsets
Telephone Network	●	○	●	●		
Cable Television Network	●			●		
Cellular Network	●	◆	●	◆	◆	●
Cable-Cellular Ventures	●	◆	●	●	◆	●
Interexchange Carriers	○	○	◆			
Competitive Access Provider	◆	◆	◆	◆		
Electric or Gas Utilities				○		

● Economies of scope found to exist in this component reported in this paper
○ Strong economies of scope likely to exist in this component, although not verified by cost model
◆ Limited economies of scope like to exist in this component, although not verified by cost model

Source: David Reed Study, Table 9.

Excluding or Restricting Cellular Entry is Unnecessary, Irrational, and Counter-productive

In a marketplace characterized by multiple licensees and product substitutability, excluding, or restricting, any company or investor which has shown a commitment to bringing services to the public, is irrational.

A conclusory statement that wireless service providers *could* have an incentive to restrict output is inadequate to justify excluding or restricting cellular entry. In a market characterized by the multiple providers envisioned in the PCS Order it will not be possible to "warehouse" spectrum, particularly if licensed in such smaller and more efficient blocs as CTIA advocates, since other licensees will have spectrum with which to provide competition. It is contradictory to adopt a policy of excluding or marginalizing those with the experience and incentives to offer new wireless services, in the name of fostering such services.

Ironically, this entry test is also predicated upon *potential* success. Over 300 cellular companies serve a total subscriber base of 16 million, out of a potential base of about 248 million. *Companies in other sectors of the telecommunications industry* (such as the interexchange marketplace) *have more subscribers than the entire cellular industry.* And *some potential PCS companies (such as cable operators) have a monopoly grasp on their core businesses* -- in comparison to a cellular company having at least one other competitor.

But CTIA does not advocate restricting interexchange companies, nor cable companies, nor any other would-be PCS providers. CTIA believes than any restrictions (beyond simple financial qualification) are inappropriate, and more harmful than beneficial to the public.

Cellular Eligibility Will Foster Innovation and Competition

Allowing cellular companies to acquire the resources (*i.e.*, the spectrum) to provide new services will extract the most value from their expertise and their existing networks, and provide greater benefits to the public than would be derived by prohibiting or unnecessarily constraining their participation in the PCS marketplace.

Such open entry will permit cellular companies to develop and deploy new services within their existing cellular service areas, and will enable them to deploy both existing voice and new data and messaging capabilities in larger, adjacent markets.

But the current PCS rule regarding ownership attribution in adjacent markets -- and especially the draconian proposals of Time Warner Telecommunications and MCI -- will further limit consumer service.[3]

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[3]The current PCS rule provides that companies, individuals, or partnerships with a five percent interest in a cellular company have an "attributable" interest. Such companies or partnerships with an aggregate 20 percent interest in a cellular company are themselves classified as "cellular" companies, and are limited to holding one 10 MHz Basic Trading Area (BTA) license "[w]ithin service areas in which there is 10 or more percent overlap between the cellular and PCS service areas" population. *See Second Report and Order*, 8 FCC Rcd. at 7745 paras. 105-107.

Barring cellular providers whose service areas encompass more than 10 percent of the population of a Major Trading Area (MTA) from competing on an equal basis for licenses in the adjoining markets within the MTA -- or for a wide-area MTA license -- will limit their capability to offer a diverse array of services in areas adjoining their cellular markets.

The impact of the adjoining market ownership restriction is actually exponential, as the would-be PCS provider is handicapped in trying to reach a larger marketplace, simply because he/she has an adjacent cellular market which gets caught in the net of the FCC's new, extra-large service areas.

This rule falls heavily on players large and small, whether they operate consolidated or geographically-separated markets, and whether or not they possess controlling or minority interests. Thus, a company such as ALLTEL Mobile, serving areas in which 6.2 million people live, will be restricted across nine MTAs in which 36.1 million people live. Palmer Communications, serving seven geographically-separated cellular markets in which just over 1 million people live, will be restricted across an area in which almost 11 million people live. Youngstown Cellular Telephone Company, which provides service in three cellular markets in Ohio and Pennsylvania, with a total population of about 700,000, would be restricted in its ability to pursue expansion opportunities in the Cleveland MTA, which has a population of 4.9 million.

Other companies, such as Sprint and GTE, which operate geographically dispersed markets are likewise disproportionately impacted by the geographic overlap rule, being effectively restricted in 15 and 23 MTAs, respectively.

And investors or companies which hold passive, minority, non-controlling interests are impacted by the attribution and overlap rules. Thus, the minority partners in many RSAs and MSAs are handicapped in either directly pursuing a PCS role or in partnering with other PCS aspirants across broad geographic areas.[4]

Yet even these anticompetitive results are not enough for some would-be players, who have since argued that the nine largest cellular providers should be barred from bidding for wide-area licenses regardless of whether or not they serve segments of those markets.

MCI, which has argued that PCS is a naturally nationwide service, has argued for gross restriction of the wireless industry across the entire United States.[5] Ironically,

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[4]*See e.g.,* Petitions for Reconsideration of GTE, National Telephone Cooperative Association, OPASTCO, PMN, Inc., and Sprint Cellular, in GEN Docket No. 90-314, filed December 8, 1993.

[5]MCI's proposal, advanced in its Petition for Reconsideration in GEN Docket No. 90-314, filed December 8, 1993, would prohibit the nine largest cellular carriers from bidding for one block of 30 MHz licenses nationwide. Bad policy in and of itself, this proposal would also dramatically reduce the revenues derived from the auctioning of the spectrum for that block.

under MCI's vision of PCS, if the rule that participation in a related market, and over a shared geography were generally held to be grounds for exclusion, MCI would also be excluded from PCS, as a provider of nationwide services and part owner of a wireless company.

But CTIA does not think that it is any more -- or any less -- appropriate to exclude MCI for its role as a nationwide service provider and owner of a wireless company than it is to exclude any cellular companies.

Unnecessary Ownership Attribution and Geographic Overlap Rules Should Be Eliminated

Cellular companies should enjoy full and equal eligibility for PCS licenses, comparable to other spectrum-based providers (such as enhanced specialized mobile radio operators), free from any unjustifiable restrictions.

CTIA believes that the existing eligibility restrictions are too stringent, and that the further eligibility restrictions proposed by MCI and Time Warner Telecommunications are completely inappropriate, being unjustified by any hypothetical exercise of undue market power, and that such restrictions constitute a direct threat to the FCC's PCS goals and the mandates of the Omnibus Budget Reconciliation Act.

The current ownership attribution and geographic overlap rules effectively penalize cellular companies, and their investors who risk being converted into "cellular companies" by virtue of their cumulative, passive investments, for their commitment to the wireless marketplace.

By imposing such restrictions as proposed by MCI and Time Warner Telecommunications, the FCC would risk further undermining the viability of the wireless marketplace, even as its existing policies already threaten to undercut the ability of wireless providers and investors to go forward with the deployment of new services and participate on an equal basis in the new wireless marketplace.

The FCC's current restrictions also threaten the ability of cellular companies and investors to partner with small, women, minority and rural service providers. In fact, adopting ownership attribution and overlap rules invites special pleading and gaming of the final rules, by forcing investors and potential PCS providers to adjust their strategies and investments to comply with the specific levels chosen.[6]

[6]Thus, MCI's proposed nationwide consortium has collapsed, and the investments which it and other companies have taken in wireless service providers have been tailored to fall just below the 20 percent level, at 17 percent in the case of MCI's investment in NEXTEL.